

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

6. (currently amended) A coin discriminating device, comprising
a sensor electrode;

an oscillator coupled to the sensor electrode, the oscillator being capable of generating an output signal with a frequency which is capacitively controllable;

a capacitor for controlling the output signal, the capacitor comprising a first capacitor plate and a second capacitor plate for generating a capacitance therebetween, the first capacitor plate comprising the sensor electrode and the second capacitor plate comprising a coin positioned in a vicinity of the sensor electrode, the capacitor being free of a third capacitor plate coupled to the oscillator;

a frequency detector ~~adapted to receive~~ for receiving the output signal from the oscillator as well as a reference signal from a reference oscillator so as to provide an output which comprises a difference between ~~aforesaid signals~~ the output signal and the reference signal for detecting a frequency deviation in ~~[[said]]~~ the oscillator output signal, caused by a variation in capacitance at ~~[[said]]~~ the sensor electrode when ~~[[a]]~~ the coin is positioned in a vicinity of the sensor electrode; and

a processing device ~~adapted to determine~~ for determining a thickness of ~~[[said]]~~ the coin from the frequency deviation, wherein the coin discriminating device is arranged such that ~~[[said]]~~ the variation in capacitance occurs in a gap between the sensor electrode and a surface of the coin, wherein the size of the gap depends on the thickness of the coin.

7. (previously presented) The coin discriminating device according to claim 6, wherein the oscillator comprises a voltage-controlled oscillator.

8. (cancelled)

9. (cancelled)

10. (currently amended) A coin handling machine, comprising:

a coin inlet;

a coin feeder;

a coin discriminator;

a handling device; wherein the coin discriminator is coupled to the handling device and is ~~adapted to determine~~ for determining a type, identity or denomination of respective coins received from the coin feeder;

wherein the coin discriminator comprises:

a sensor device capable of measuring a variation in capacitance between a sensor electrode and a surface of an individual coin positioned in a vicinity of the sensor electrode, the sensor device comprising a capacitor having a first capacitor plate and a second capacitor plate for generating a capacitance therebetween, the first capacitor plate comprising the sensor electrode and the second capacitor plate comprising the coin positioned in the vicinity of the sensor electrode, the capacitor being free of a third capacitor plate coupled to the oscillator wherein ~~[[said]]~~ the variation in capacitance occurs in a gap between the sensor electrode and a surface of the coin, ~~[[said]]~~ a size of the gap depending on ~~[[the]]~~ a thickness of the coin;

a signal generating device capable of producing a signal representing ~~[[said]]~~ the variation in capacitance; and

a processing device capable of determining a thickness of the coin from ~~[[said]]~~ the signal.

11. (new) The coin discriminating device of claim 6 wherein the second capacitor plate is electrically connected to ground.

12. (new) The coin handling machine of claim 10 wherein the second capacitor plate is electrically connected to ground.

13. (new) The coin discriminating device of claim 6 wherein the capacitance is based solely on the gap between the first and second capacitor plate and is not based on any intervening structure between the first and second capacitor plate.

14. (new) The coin handling device of claim 10 wherein the capacitance is based solely on the gap between the first and second capacitor plate and is not based on any intervening structure between the first and second capacitor plate.

15. (new) A coin discriminating device for determining a thickness of a coin, the coin discriminating device comprising

a sensor electrode;

an oscillator electrically connected to the sensor electrode, the oscillator generating an output signal having a frequency that is capacitively controllable;

a frequency detector for receiving the output signal from the oscillator as well as a reference signal from a reference oscillator so as to provide an output which comprises a difference between the output signal and the reference signal and is for detecting a frequency deviation in the oscillator output signal, the frequency deviation being caused by a variation in capacitance at the sensor electrode when the coin is positioned in a vicinity of the sensor electrode and electrically connected to ground; and

a processing device for determining a thickness of the coin from the frequency deviation, wherein the coin discriminating device is arranged such that a variation in capacitance occurs in a gap between the sensor electrode and a surface of the coin, wherein the size of the gap depends on the thickness of the coin.

16. (new) The coin discriminating device of claim 15 further comprising a capacitor for controlling the output signal, the capacitor comprising a first capacitor plate and a second capacitor plate for generating a capacitance therebetween, the first capacitor plate comprising the sensor electrode and the second capacitor plate comprising the coin.

17. (new) The coin discriminating device of claim 16 wherein the capacitance is based solely on the gap between the first and second capacitor plate and is not based on any intervening structure between the first and second capacitor plate.